PERMIT NO. 3086-031-0064-S-02-0
ISSUANCE DATE:

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Air Quality Permit

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Rules, Chapter 391-3-1, adopted pursuant to and in effect under that Act,

Facility Name:	**Building Materials Mfg. Corporation**
Facility Address:	**502 Jimps Road** **Statesboro, Georgia 30458 Bulloch County**
Mailing Address:	**1 Campus Drive** **Parsippany, New Jersey 07054**
Facility AIRS Number:	**04-13-031-00064**

is issued a Permit for the following:

Operation of a facility to manufacture insulated foam boardstock for the residential and commercial construction industry, including the clarification of operating limits, monitoring, and recordkeeping requirements for the RTO (Source Code RT01) and Foam Board Manufacturing Process (Source Code L01). This Permit is issued for the purpose of establishing practically enforceable emission limitations such that the facility will not be considered a major source with respect to Title V of the Clean Air Act Amendments of 1990.

This Permit is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit.

This Permit may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Application No. 28209 dated December 7, 2021; any other applications upon which this Permit is based; supporting data entered therein or attached thereto; or any subsequent submittals or supporting data; or for any alterations affecting the emissions from this source.

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **7** pages.

STATE OF GEORGIA
CONSTITUTION
WISDOM
JUSTICE
MODERATION
1776

Richard E. Dunn, Director
Environmental Protection Division

1. General Requirements

1.1 At all times, including periods of startup, shutdown, and malfunction, the Permittee shall maintain and operate this source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection or surveillance of the source.

1.2 The Permittee shall not build, erect, install or use any article, machine, equipment or process the use of which conceals an emission which would otherwise constitute a violation of an applicable emission standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged into the atmosphere.

1.3 The Permittee shall submit a Georgia Air Quality Permit application to the Division prior to the commencement of any modification, as defined in 391-3-1-.01(pp), which may result in air pollution and which is not exempt under 391-3-1-.03(6). Such application shall be submitted sufficiently in advance of any critical date involved to allow adequate time for review, discussion, or revision of plans, if necessary. The application shall include, but not be limited to, information describing the precise nature of the change, modifications to any emission control system, production capacity and pollutant emission rates of the plant before and after the change, and the anticipated completion date of the change.

1.4 Unless otherwise specified, all records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division and shall be retained for at least five (5) years following the date of entry.

1.5 In cases where conditions of this Permit conflict with each other for any particular source or operation, the most stringent condition shall prevail.

2. Allowable Emissions

2.1 The Permittee shall not discharge nor cause the discharge into the atmosphere from the entire facility volatile organic compound (VOC) emissions in an amount equal to or exceeding 99 tons during any consecutive twelve-month period.
[Avoidance of 40 CFR Part 70 Applicability]

2.2 The Permittee shall not cause, let, suffer, permit, or allow any emissions from the Thermal Fluid Heater and Steam Generator (Source Codes H01 and H02) which contain fly ash and/or other particulate matter in amounts equal to or exceeding the rate derived from:
[391-3-1-.02(2)(d)2.(ii)]

P = 0.5 lbs per million BTU hear input

2.3 The Permittee shall not cause, let, suffer, permit, or allow any emissions from the Thermal Fluid Heater and Steam Generator (Source Codes H01 and H02) which exhibit visible emissions, the opacity of which is equal to or greater than 20% except for one six minute period per hour of not more than 27% opacity.
[391-3-1-.02(2)(d)3]

2.4 The Permittee shall not cause, let, suffer, permit, or allow emissions from the Foam Injection Line (Source Code L01) the opacity of which is equal to or greater than forty (40) percent.
[391-3-1-.02(2)(b)1]

2.5 The Permittee shall not cause, let, suffer, permit, or allow the emission from any source, including the Foam Injection Line (Source Code L01), particulate matters (PM) in total quantities equal to or exceeding the allowable rate as calculated using the applicable equation below, unless otherwise specified in this Permit.
[391-3-1-.02(2)(e)1.(i)]

a. For equipment in operation or extensively altered **after** July 2, 1968:

i. $E = 4.1P^{0.67}$, for process input weight rate up to and including 30 tons per hour;

ii. $E = 55P^{0.11} - 40$, for process input weight rate in excess of 30 tons per hour.

Where:
E = allowable emission rate in pounds per hour;
P = process input weight rate in tons per hour.

3. Fugitive Emissions

3.1 The Permittee shall take all reasonable precautions with any operation, process, handling, transportation, or storage facilities to prevent fugitive emissions of air contaminants.

4. Process & Control Equipment

4.1 The Permittee shall operate the baghouse (Source Code BH-1) at all times of process operation of the Foam Injection Line.

4.2 Routine maintenance shall be performed on all air pollution control equipment. Maintenance records shall be recorded in a permanent form suitable and available for inspection by the Division.

4.3 The Permittee shall ensure that emissions from the pour table and laminator portions of the Foam Board Manufacturing Process (Source Code L01) are controlled by the Regenerative Thermal Oxidizer (Source Code RTO1) at all times that the Foam Board Manufacturing Process (Source Code L01) is in operation.

4.4 The Permittee shall ensure that the Regenerative Thermal Oxidizer (Source Code RTO1) and the vapor collection system controlling emissions from the pour table and laminator portions of the Foam Board Manufacturing Process (Source Code L01) are operated and maintained such that at least 75 percent of the total hydrocarbon (THC) emissions from the Foam Board Manufacturing Process (Source Code L01) are routed to the Regenerative Thermal Oxidizer (Source Code RTO1) any time that the process is in operation.

4.5 The Permittee shall ensure that the Regenerative Thermal Oxidizer (Source Code RT01) is operated and maintained to achieve a minimum THC destruction efficiency of 95 percent.

4.6 The Permittee shall maintain a minimum 3-hour rolling average combustion zone temperature on the Regenerative Thermal Oxidizer (Source Code RTO1) of 1550ºF during all periods of operation, or temperature approved by the Division from the most recent performance test.

4.7 The Permittee shall maintain a minimum 3-hour rolling average air flow rate to the Regenerative Thermal Oxidizer (Source Code RTO1) of 5530 cfm, or the minimum air flow rate approved by the Division from the most recent performance test.

5. Monitoring

5.1 Once each day, or portion of each day of operation, the Permittee shall perform a check for visible emissions from the Foam Injection Line Baghouse (Source Code: BH-1) and inspect emissions units for mechanical problems or malfunction. For any observation of visible emissions, mechanical problems, or malfunctions, the Permittee shall take corrective action and reinspect the equipment to verify that no visible emissions exist and that any mechanical problems or malfunctions have been corrected. The observations and corrective actions shall be recorded in a log and maintained in a condition suitable for inspection by, or submittal to, the Division.

5.2 The Permittee shall install, calibrate, and maintain a monitoring system to continuously measure and record the air flow rate at all times that the Regenerative Thermal Oxidizer (Source Code RTO1) is in operation. The hourly average inlet air flow rate shall be calculated using all data points collected, but not less than four data points equally spaced over each hour.

5.3 The Permittee shall install, calibrate, and maintain a temperature monitoring device in the combustion zone of the Regenerative Thermal Oxidizer (Source Code RTO1) to continuously monitor and record the combustion zone temperature at all times that the Regenerative Thermal Oxidizer (Source Code RTO1) is in operation. The monitoring system shall be located at a position prior to any substantial heat loss. The hourly average combustion zone temperature shall be calculated using all the data points collected, but not less than four data points equally spaced over each hour. The temperature monitoring device shall have a required accuracy of ±2 percent (°F). The average of the instantaneous temperature readings from the two combustion zone thermocouples shall be used as the instantaneous combustion zone temperature used for computing the hourly averages.

6. Performance Testing

6.1 The Permittee shall cause to be conducted a performance test at any specified emission point when so directed by the Division. The following provisions shall apply with regard to such tests:

a. All tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants.

b. All test results shall be submitted to the Division within sixty (60) days of the completion of testing.

c. The Permittee shall provide the Division thirty (30) days prior written notice of the date of any performance test(s) to afford the Division the opportunity to witness and/or audit the test, and shall provide with the notification a test plan in accordance with Division guidelines.

d. All monitoring systems and/or monitoring devices required by the Division shall be installed, calibrated and operational prior to conducting any performance test(s). For any performance test, the Permittee shall, using the monitoring systems and/or monitoring devices, acquire data during each performance test run. All monitoring system and/or monitoring device data acquired during the performance testing shall be submitted with the performance test results.

6.2 Within 180 days after startup of the Regenerative Thermal Oxidizer (Source Code RTO1) in connection to the pour table and laminator, the Permittee shall conduct testing as described below while the Foam Board Manufacturing Process (Source Code L01) is in operation.

a. To demonstrate compliance with Condition 4.5, the Permittee shall conduct testing to measure the THC destruction efficiency of the Regenerative Thermal Oxidizer (Source Code RTO1). The results of the performance tests shall be used to determine the combustion zone temperature for the vapor collection system and Regenerative Thermal Oxidizer (Source Code RTO1).

b. To demonstrate compliance with Condition 4.4, the Permittee shall conduct testing to determine the percentage of THC emissions from the Foam Board Manufacturing Process (Source Code L01) that are routed to the Regenerative Thermal Oxidizer (Source Code RTO1). The results of the performance test shall be used to determine the air flow rate for the vapor collection system and the Regenerative Thermal Oxidizer (Source Code RTO1). The amount of emissions routed to the Regenerative Thermal Oxidizer (Source Code RTO1) shall be assessed by simultaneously measuring the THC emission rate at the inlet to the Regenerative Thermal Oxidizer (Source Code RTO1) and the outlet of the Baghouse (Source Code BH1). The percentage of emissions routed to the Regenerative Thermal Oxidizer (Source Code RTO1) shall be calculated using the following equation:

E_{RTO1} (%) = [E_{RTO1} (lb/hr) / [E_{RTO1} (lb/hr) + E_{BH1} (lb/hr)]]*100

Where:

E_{RTO1} (%): Percentage of total THC emissions from the Foam Board Manufacturing Process (Source Code L01) that are route to the Regenerative Thermal Oxidizer (Source Code RTO1).

E_{RTO1} (lb/hr): Hourly THC emission rate measured at the inlet to the Regenerative Thermal Oxidizer (Source Code RTO1).

E_{BH1} (lb/hr): Hourly THC emission rate measured at the outlet of the Baghouse (Source Code BH1).

7. Notification, Reporting and Record Keeping Requirements

7.1 The Permittee shall maintain monthly usage records of all materials used in the Foam Board Manufacturing Process (Source Code L01) at the facility that contain volatile organic compounds (VOC). These records shall include the total weight of each material used and the VOC content of each material (expressed as a weight percentage). The Permittee may subtract from the monthly usage the volatile content of any material disposed as waste provided that the total weight, VOC content (expressed as a weight percentage), and documentation of the method for determining the VOC content of any such waste material be included as part of the record. All other calculations used to determine usages should also be kept as part of the monthly record.

7.2 The Permittee shall use the monthly usage records required in Condition 7.1 to calculate the total monthly VOC emissions from the entire facility. All variables used in the calculation, including any Division-approved emission factors, control efficiencies or coating transfer efficiencies, shall be kept as part of the monthly records. The Permittee shall notify the Division in writing if the total VOC emissions exceed 8.25 tons during any calendar month. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain compliance with the emission limit in Condition 2.1.

For the operation of the Regenerative Thermal Oxidizer (Source Code RTO1) the facility shall use the equations on Page 3 of Appendix B of Air Quality Application No. 27100 to calculate VOC emissions. During periods of regenerative thermal oxidizer malfunction, or a 3-hour rolling average combustion zone temperature below 1500°F, as defined in Condition 7.8, the Permittee shall assume the destruction efficiency of the control device is zero.

7.3 The Permittee shall use the calculations required by Condition 7.2 to determine the total VOC emissions from the entire facility for each twelve consecutive month period. The Permittee shall notify the Division in writing if the total VOC emissions equal or exceed 99 tons during any twelve consecutive month period. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to attain future compliance with the emission limit in Condition 2.1.

7.4 The Permittee shall record all times of process operation during which the baghouse (Source Code BH-1) is not controlling emissions from the cutting operation of the Foam Injection Line.

7.5 The Permittee shall maintain records of hourly production rates, maintenance and inspection of all dust collection devices and fugitive dust emission points. This information shall be recorded in a permanent form suitable and available for inspection.

7.6 The Permittee shall submit all notifications for the construction of the facility by the dates specified, including:

a. The actual date of start of construction of the facility postmarked within 15 days after such date.

b. The actual date of initial startup of the facility postmarked within 15 days after such date.

7.7 The Permittee shall submit written notification to the Division of the actual date of startup of the Regenerative Thermal Oxidizer (Source Code RTO1) in connection to the Foam Board Manufacturing Process (Source Code L01). For the purpose of this condition, startup shall mean that the source has been properly installed and is capable of proper operation for the purpose intended. This notification shall be postmarked within 15 days of the initial startup date.

7.8 The Permittee shall maintain a record of the air flow rate and the combustion zone temperature monitoring required by Conditions 5.2 and 5.3. As a minimum, the record shall include the date and time of each hourly average reading and shall indicate any 3-hour rolling average when the air flow rate is less than the air flow rate required by Condition 4.7 or the 3-hour rolling average combustion zone temperature is below the operating temperature required by Condition 4.6.

8. Special Conditions

8.1 At any time that the Division determines that additional control of emissions from the facility may reasonably be needed to provide for the continued protection of public health, safety and welfare, the Division reserves the right to amend the provisions of this Permit pursuant to the Division's authority as established in the Georgia Air Quality Act and the rules adopted pursuant to that Act.

8.2 The Permittee shall calculate and pay an annual Permit fee to the Division. The amount of the fee shall be determined each year in accordance with the "Procedures for Calculating Air Permit Application & Annual Permit Fees."

8.3 Air Quality Permit No. 3086-031-0064-S-01-0 and Amendment Nos. 3086-031-0064-S-01-1 and 3086-031-0064-S-01-2 are hereby revoked in their entirety.